

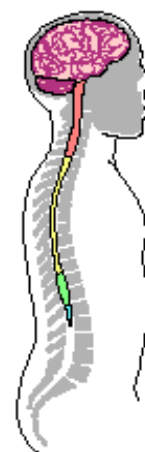
Multiple Sclerosis

What is multiple sclerosis?

Multiple sclerosis (MS) is a disease of the central nervous system (the brain and spinal cord). People who have multiple sclerosis may lose coordination and muscle control. However, many people with multiple sclerosis are only mildly affected by the disease and continue to lead their lives much as they did before their diagnosis.

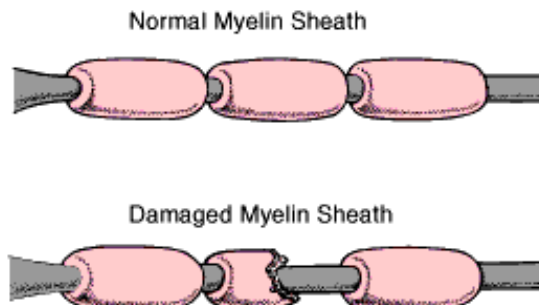
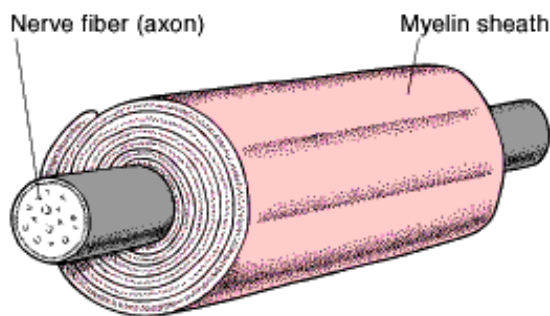
There are two different patterns of MS symptoms. The more common pattern is an episode of symptoms for days or weeks followed by a period of no symptoms for weeks or months. This type of MS is called relapsing-remitting disease.

The less common pattern is steady worsening of symptoms from the first signs of illness. This is called primary progressive disease.



How does it occur?

The cause of multiple sclerosis is still unknown. For reasons not yet understood, the fatty substance called myelin, which covers nerve fibers, is damaged in random areas. The myelin normally insulates entire nerve fibers. It helps nerve messages to be properly conducted to and from the brain. The areas of myelin that are damaged are called plaques. The symptoms of multiple sclerosis depend on where these plaques are in the central nervous system.



Currently, most scientists believe that the loss of myelin is caused by an autoimmune process. This means the body mistakenly reacts to some part of itself as foreign and attacks it. In the case of MS, the body destroys areas of its own myelin.

What are the symptoms?

Often the first symptoms of MS are vague feelings of weakness, clumsiness, or exhaustion. Your vision may become blurry, or one or more areas of your skin may feel numb and tingly. Usually these symptoms come and go unpredictably. The times when you are having symptoms are called episodes. The episodes may last a few days or weeks at a time.

Other possible symptoms include:

- double vision
- weakness of limbs
- muscle stiffness
- dizziness
- loss of bladder control
- depression
- memory loss.

The times between episodes, when you are not having symptoms, are called remissions. Many people with MS are able to function quite normally between episodes.

How is it diagnosed?

The best test for MS is MRI (magnetic resonance imaging). MRI produces x-ray-like images that are better than other methods for seeing certain areas of the central nervous system. With MRI it is possible to see the places where myelin has been damaged.

If the diagnosis is still uncertain after MRI, your health care provider may do a test that measures how fast your nerves conduct impulses. Also, a sample of fluid from your spine may be analyzed for protein changes that are often found in people who have MS.

More than one MRI may be done over time. Several MRIs may show plaques appearing in different areas of the central nervous system at different times. This confirms the diagnosis of multiple sclerosis.



How is it treated?

There is not yet a cure for MS. However, treatment with medicine can help shorten episodes of symptoms and increase the time between episodes.

Steroids are used for short-term treatment of episodes of symptoms. These drugs can shorten the times that you have symptoms.



The goal of long-term treatment is to help the remissions (the symptom-free times) to last longer. Drugs that prevent the immune system from attacking the myelin are used to prevent episodes.

The drugs most commonly used for this purpose are the interferons, especially beta-interferon.

A new drug, glatiramer acetate, is being prescribed to decrease the relapsing rate.

New treatments currently under study range from experimental drugs to bone marrow transplants.

Combinations of proven drugs, such as beta-interferon, with new treatments are also being tested.

There are also medicines that can help control specific symptoms of MS, such as depression, fatigue, urinary symptoms, and tremors or spasms. Ask your health care provider about medicines to help with these symptoms.

How long do the effects last?

You may have many episodes and remissions. Some people never have more than a few mild, infrequent symptoms. However, with time, the episodes may become more frequent or last longer. Some loss of function may continue between episodes. In some cases the disease eventually results in severe disability.

What kind of ongoing care do I need?

The most important aspect of care is emotional support. You may feel anxiety, anger, and fear. You may need help in getting treatment for the depression that often comes with MS.

Caring for someone with active MS requires a team approach. In addition to physicians (often including a neurologist) and nurses, other members of your health care team may be a physical therapist, occupational therapist, social worker, or counselor. The goal is to enable you to be as independent as possible while helping you deal with the intense emotional consequences of a disease that can become disabling.

What can be done to help prevent multiple sclerosis?

Because the cause of MS is not known, we do not yet know how to prevent it.

For more information, call or write:

National Multiple Sclerosis Society

733 3rd Ave.

New York, NY 10017-3288

800-FIGHT-MS (344-4867)

9 a.m. - 5 p.m., (caller's time), Monday - Friday

Web site: <http://www.nmss.org>

Educational materials, local chapters, referrals to doctors, physical therapists, lending library, on-line information specialists

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